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METHODS AND APPARATUS FOR TRANSMITTING INFORMATION IN A NETWORK

ABSTRACT OF THE DISCLOSURE

Embodiments of this invention can establish a communications path through a network device in a network for a stream of data served by a server. A host can request to receive the stream of data by sending a request through the network to the server. In response, the server creates a data distribution message and sends it onto the network towards the host. Each network device equipped with the invention receives the data distribution message via unicast communications, acknowledges the data distribution message, and creates a path table for the stream of data, and forwards the data distribution message to the next network device on route to the host. A network device that receives an acknowledgment of the data distribution message establishes at least one path through the network device in the path table for payload distribution messages that carry a stream of data. The stream of data can thus be propagated through a network with only one copy of portions (e.g., packets) of the stream traveling per path in the network, irrespective of the number of recipients served by a network device that receives the stream. Since the portions of data are propagated using standard routing protocols, they may pass or tunnel through network devices not equipped with the invention.